

# METALINE

Designed for highly efficient, glare-free, even illumination of large areas such as sports arenas and sport stadiums, race tracks, docks, railroad yards, container terminals, industrial areas, airport aprons, architectural and building lighting.

- Compact, low profile design
- Metal halide lamps give excellent color rendering
- High performance, low glare optical system
- Choice of beam distributions
- Aiming angle remains undisturbed when cleaning glass or replacing lamp

## Lamps

1500W Linear Metal Halide (MBIL) lamp

1000W Linear High Pressure Sodium (TD) lamp

For 750W Metal Halide and 400W High Pressure Sodium lamps - consult factory.

## Materials/Finish

Body: Two, marine grade - copper free, die cast aluminum end castings, black polyester powder coat finish

Front lens: Heat and impact resistant tempered glass

Reflectors: Features two distinct reflector systems. The MA Series specular compound reflector, and the MS Series specular parabolic reflector. Both systems feature:

- 1) Specular side reflector for improved overall efficiency
- 2) Wide horizontal beam spread with excellent spread uniformity
- 3) Sharp cut-off above the peak of superior glare control
- 4) Linear beam spread for maximum efficiency in lighting rectangular areas

## Installation/Mounting

Yoke or pole top fitter allows for horizontal and vertical adjustment. Ballast housing can be remotely mounted except ignitors for 1000W HPS-TD.

Die cast aluminum lens frame, hinged for front lamp replacement, with silicone gasket, secured by four stainless steel swivel bolts.

NOTE: Luminaire must not be operated without glass. MBIL lamp must be used within 15° of horizontal.

## Standard

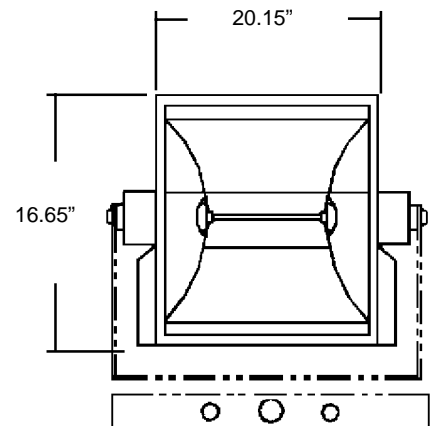
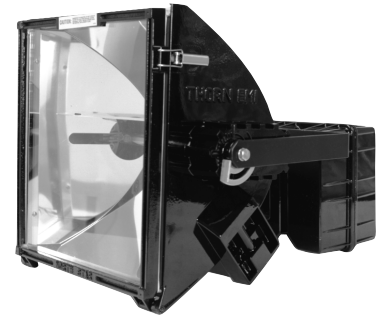
UL listed - 1000W High Pressure Sodium

1500W Metal Halide - consult factory

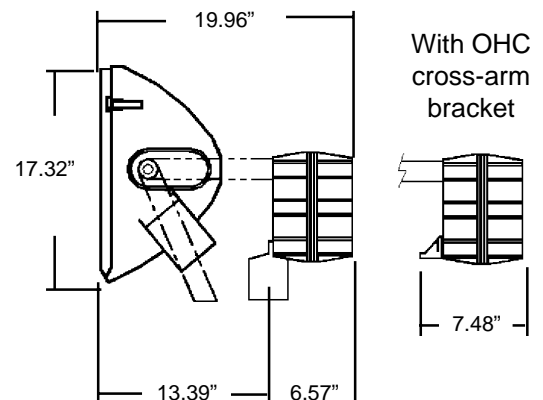
## Specification

To specify state:

Yoke mounted, enclosed, low-glare area floodlight for linear MBIL or HPS-TD lamps with remote control gear. As North Star Metaline Series.



Yoke for remote head shown dotted



With OHP pole mounting fitter

Weight = 68 lbs  
(Remote head only 24 lbs)  
EPA = 1.9 sq. ft.



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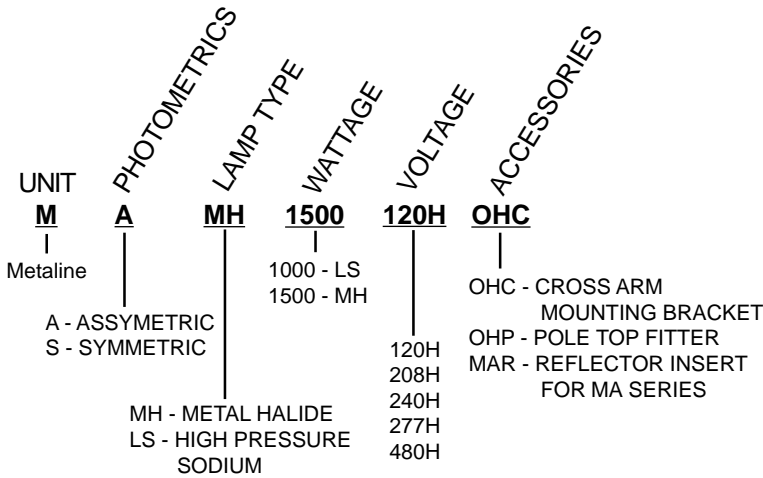
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# Metaline

**Metaline comes complete with SO cord and lamp**

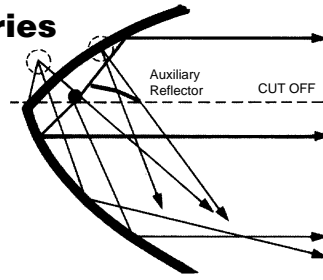
CATALOG NUMBER (1)	WATTAGE	LAMP	FIELD ANGLE (1/10 PEAK)	NEMA TYPE
MA SERIES REFLECTOR				
MALS 1000	1000	HPS-TD	82.3 x 46	5 x 3
MAMH 1500	1500	MBIL	85.8 x 57.7	5 x 4
MS SERIES REFLECTOR				
MSLS 1000	1000	HPS-TD	81.4 x 18.6	5 x 2
MSMH 1500	1500	MBIL	82 x 20	5 x 2

## ORDERING EXAMPLE (Select desired item from each column)



\*MAR - REFLECTOR INSERT FOR MA SERIES INCREASES VERTICAL BEAM SPREAD ABOVE PEAK. FOR LOW MOUNTING HEIGHTS AND AIMING ANGLES BELOW 50°.

## MA Series

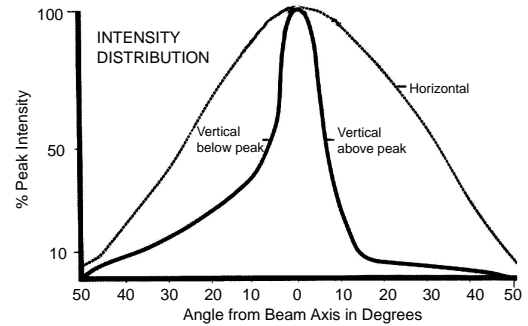


### Description

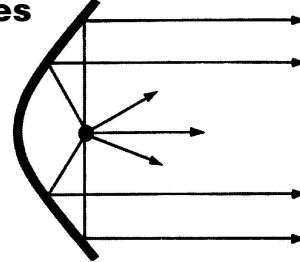
The MA Series has a specially developed reflector profile coupled with an internal lamp shield/auxiliary reflector. This has the dual function of cutting off the beam above horizontal, and re-directing it at low angles, resulting in a smooth distribution from mounting position to aiming point from this arrangement.

### Cut-Off

The output above peak reduces to 50% in 4° (1000W HPS) or 4° (1500W MH)



## MS Series

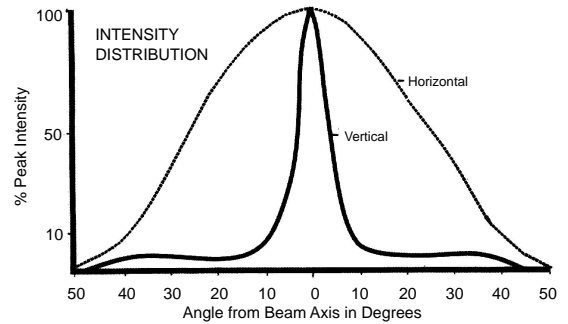


### Description

The MS Series has a parabolic reflector without any auxiliary devices. A smooth beam results, which is essentially symmetrical in the vertical plane. However, it is a sufficiently narrow beam to achieve the same cut-off as the MA Series, both above and below the horizontal.

### Cut-Off

The output above peak reduces to 50% in 4-1/2° (1000W HPS) or 4° (1500W MH)



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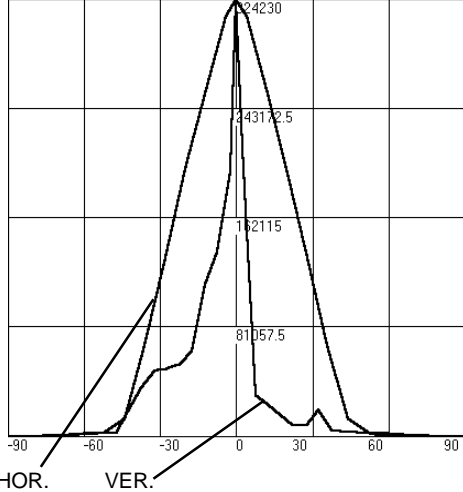
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# PHOTOMETRICS

CANDELA TRACES



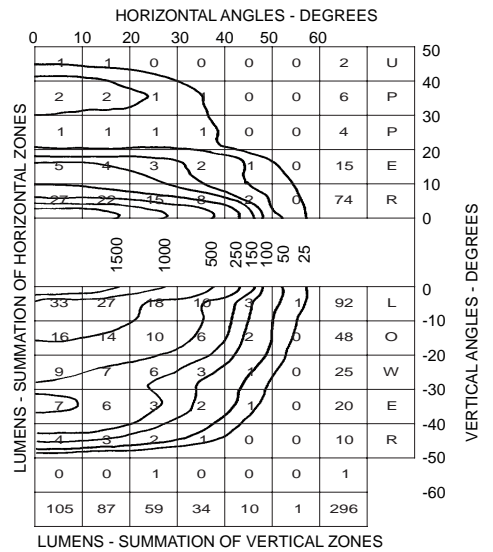
**FIXTURE: MALS-1000**  
**LAMP: 1000 Watt Clear Double-Ended High Pressure Sodium**

IES TYPE	5H x 3V
MAX CANDELA	2315
HOR FIELD ANGLE (10%)	82.3 deg
VER FIELD ANGLE (10%)	46.0 deg
FIELD LUMENS	500
FIELD EFFICIENCY	50%
TOTAL LUMENS	626
TOTAL EFFICIENCY	62.6%

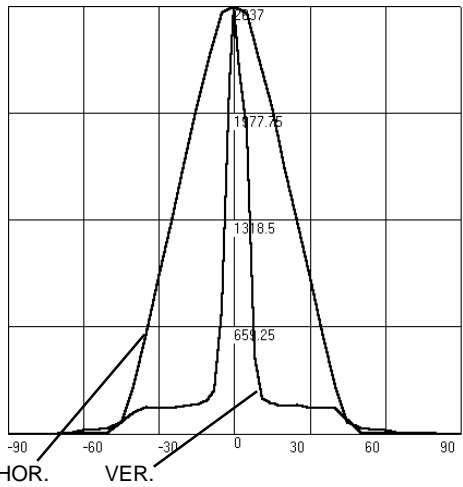
CANDELA & LUMEN VALUES ARE BASED ON 1,000 LAMP LUMENS. FOR OTHER LAMP LUMEN RATINGS, MULTIPLY CANDELA AND LUMEN VALUES BY THE NUMBER: LUMENS DIVIDED BY 1,000.

PER 1,000 LAMP LUMENS

ISOCANDELA CURVE / LUMEN DISTRIBUTION



CANDELA TRACES



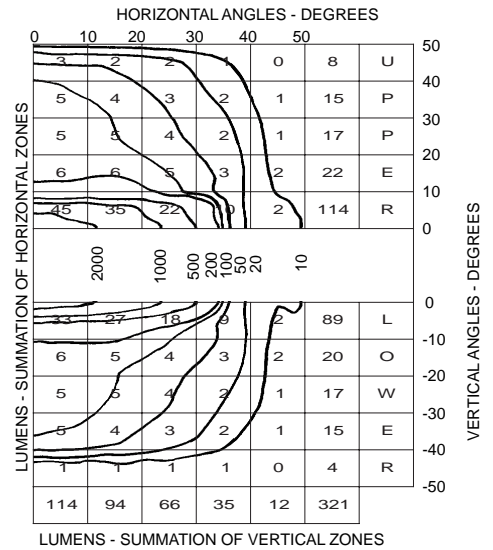
**FIXTURE: MSLS-1000**  
**LAMP: 1000 Watt Clear Double-Ended High Pressure Sodium**

IES TYPE	5H x 2V
MAX CANDELA	2637
HOR FIELD ANGLE (10%)	81.4 deg
VER FIELD ANGLE (10%)	18.6 deg
FIELD LUMENS	206
FIELD EFFICIENCY	20.6%
TOTAL LUMENS	384
TOTAL EFFICIENCY	38.4%

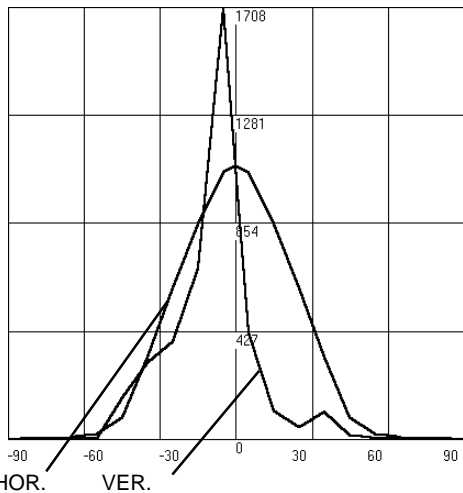
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ISOCANDELA CURVE / LUMEN DISTRIBUTION



CANDELA TRACES



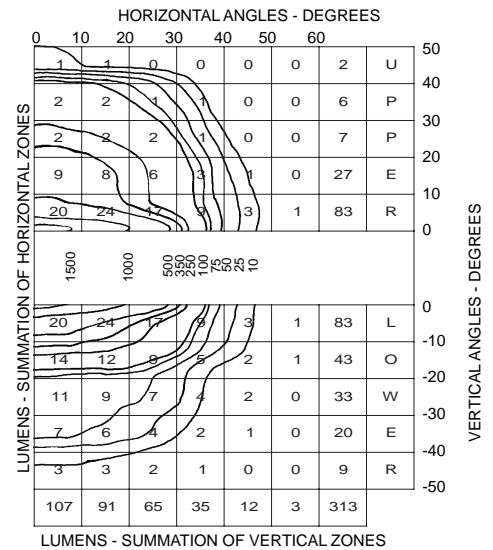
**FIXTURE: MAMH-1500**  
**LAMP: 1500 Watt Frosted Double-Ended Metal Halide**

IES TYPE	5H x 4V
MAX CANDELA	1708
HOR FIELD ANGLE (10%)	85.8 deg
VER FIELD ANGLE (10%)	57.7 deg
FIELD LUMENS	536
FIELD EFFICIENCY	53.6%
TOTAL LUMENS	642
TOTAL EFFICIENCY	64.2%

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ISOCANDELA CURVE / LUMEN DISTRIBUTION



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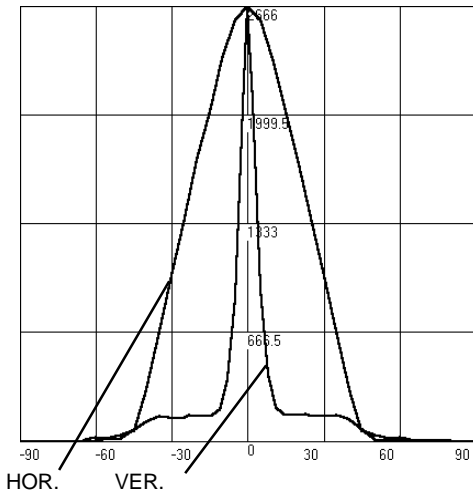
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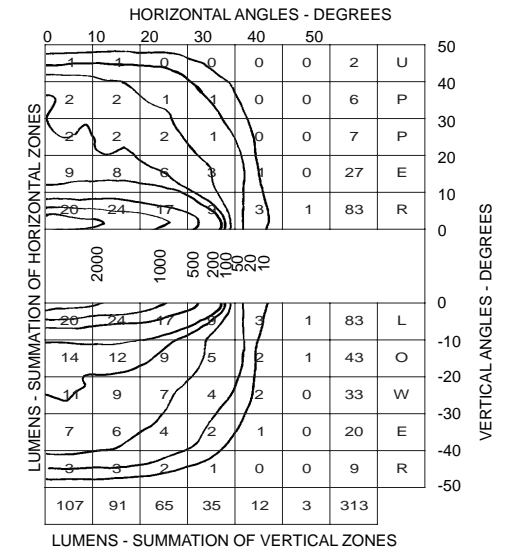
FIXTURE: MSMH-1500  
LAMP: 1500 Watt Frosted Double-Ended Metal Halide

IES TYPE	5H x 2V
MAX CANDELA	2666
HOR FIELD ANGLE (10%)	82.0 deg
VER FIELD ANGLE (10%)	20.0 deg
FIELD LUMENS	356
FIELD EFFICIENCY	35.6%
TOTAL LUMENS	570
TOTAL EFFICIENCY	57.0%

CANDELA & LUMEN VALUES ARE BASED ON 1,000 LAMP LUMENS. FOR OTHER LAMP LUMEN RATINGS, MULTIPLY CANDELA AND LUMEN VALUES BY THE NUMBER: LUMENS DIVIDED BY 1,000.

PER 1,000 LAMP LUMENS

ISOCANDELA CURVE / LUMEN DISTRIBUTION



FOR ADDITIONAL INFORMATION CONSULT FACTORY



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